



Subscribe Register Login  
(Full Service) (Limited Service, Free)

Search: ☒ The ACM Digital Library ☐ The Guide

unsupervised and supervised and neural and clustering

Feed

Terms used unsupervised and supervised and neural and clustering

Sort results  
by

relevance

Save results to a Binder

Try

Search Tips

Try

☐ Open results in a new window

Display results

expanded form

Results 1 - 20 of 200

Result page: 1 2 3 4 5 6 7 8 9

Best 200 shown

1 Text Categorization: Unsupervised document classification using sequential

Noam Slonim, Nir Friedman, Naftali Tishby

August 2002 Proceedings of the 25th annual international ACM SIGIR conference on retrieval

Full text available: pdf(236.71 KB)

Additional Information: full citation, abstract, referen

We present a novel sequential clustering algorithm which is motivated by the *In* contrast to the agglomerative *IB* algorithm, the new sequential (*sIB*) approach i maximum of the information with time and space complexity typically linear in t the original IB principle. Moreover, the time and space complexity are significant unsup ...

## 2 Web clustering and usage mining: Clustering documents in a web directory

Giordano Adami, Paolo Avesani, Diego Sona

November 2003 Proceedings of the fifth ACM international workshop on Web inform

Full text available:  pdf(180.53 KB)

Additional Information: full citation, abstract, referenc

Hierarchical categorization of documents is a task receiving growing interest due hierarchies for text documents. The worst problem of hierarchical supervised cla labeled examples, whose amount is related to the number of topics in the taxon hierarchy with a proper set of labeled examples is a critical issue. In this paper, bootstrapping problem, imp ...

Keywords: TaxSOM, constrained clustering, digital libraries, k-means, knowledg process, text categorization, web directories

## 3 Knowledge management session 4: indexing: Bootstrapping for hierarchica

Giordano Adami, Paolo Avesani, Diego Sona

November 2003 Proceedings of the twelfth international conference on Information

Full text available:  pdf(180.73 KB)

Additional Information: full citation, abstract, referen

Managing the hierarchical organization of data is starting to play a key role in th due to the great amount of human resources needed to create and maintain the Machine learning community has in part addressed this problem by developing t maintainers to categorize new resources within given hierarchies. Although such relational knowledge, they ...

Keywords: TaxSOM, constrained clustering, k-means, taxonomy bootstrapping p

## 4 Special issue on special feature: Distributional word clusters vs. words for t


Ron Bekkerman, Ran El-Yaniv, Naftali Tishby, Yoav Winter

March 2003 The Journal of Machine Learning Research, Volume 3

Full text available:  pdf(176.53 KB)


Additional Information: full citation, a

We study an approach to text categorization that combines distributional cluster Machine (SVM) classifier. This word-cluster representation is computed using the *Bottleneck* method, which generates a compact and efficient representation of d classification power of the SVM, this method yields high performance in text cati SVM with word-cluster representation ...


- 5 **Knowledge Management: Organizing What You Know: FOCl: flexible organ**  
Hwee-Leng Ong, Ah-Hwee Tan, Jamie Ng, Hong Pan, Qiu-Xiang Li  
October 2001 Proceedings of the tenth international conference on Information and  
Full text available:  pdf(1.27 MB) Additional Information: full citation, abstract, ref

This paper describes how an integrated web-based application, code-named FOCl (Intelligence), can help the knowledge worker in the gathering, organizing, track intelligence or knowledge bases on the web. It shows how text mining technique clustering, trend analysis and visualization techniques can be used synergistically information gathered from the web ...

Keywords: clustering, competitive intelligence, personalization, text mining, trer

- 6 **Identifying and testing of signatures for non-volatile biomolecules using tan**  
Ray R. Hashemi, Theresa M. Schafer, William G. Hinson, Jackson O. Lay  
February 1996 Proceedings of the 1996 ACM symposium on Applied Computing  
Full text available:  pdf(626.77 KB) Additional Information: full citation, references, index ter

Keywords: Kohonen self organizing map, classification, pattern generation, tand

- 7 **Intrusion and privacy: Exploiting unlabeled data in ensemble methods**  
Kristin P. Bennett, Ayhan Demiriz, Richard Maclin  
July 2002 Proceedings of the eighth ACM SIGKDD international conference on Know  
Full text available:  pdf(719.46 KB) Additional Information: full citation, abstract, referen

An adaptive semi-supervised ensemble method, ASSEMBLE, is proposed that co both labeled and unlabeled data. ASSEMBLE alternates between assigning "pseu the existing ensemble and constructing the next base classifier using both the la Mathematically, this intuitive algorithm corresponds to maximizing the classifica measured on both the labeled and unlabeled ...

Keywords: boosting, classification, ensemble learning, semi-supervised learning

**8 Special issue on special feature: An introduction to variable and feature sel**

Isabelle Guyon, André Elisseeff

March 2003

The Journal of Machine Learning Research, Volume 3

Full text available:  pdf(862.82 KB)

Additional Information: full citation

Variable and feature selection have become the focus of much research in areas where tens or hundreds of thousands of variables are available. These areas include gene expression array analysis, and combinatorial chemistry. The objective of variable selection is to improve the prediction performance of the predictors, providing faster and more cost-effective understanding of the ...

**9 Data clustering: a review**

A. K. Jain, M. N. Murty, P. J. Flynn

September 1999

ACM Computing Surveys (CSUR), Volume 31 Issue 3

Full text available:  pdf(636.24 KB)

Additional Information: full citation, abstract, references, citations

Clustering is the unsupervised classification of patterns (observations, data items; or data points) into groups (clusters). The clustering problem has been addressed in many contexts and by many methods. This paper reflects its broad appeal and usefulness as one of the steps in exploratory data analysis. It discusses the problem combinatorially, and differences in assumptions and contexts in different applications. Useful generic concepts and methods are discussed.


Keywords: cluster analysis, clustering applications, exploratory data analysis, unsupervised learning

**10 The exploration of legal text corpora with hierarchical neural networks: a guide**

Dieter Merkl, Erich Schweighofer

June 1997

Proceedings of the sixth international conference on Artificial intelligence

Full text available:  pdf(1.12 MB)

Additional Information: full citation, references, citations

**11 Data mining solves tough semiconductor manufacturing problems**

Mike Gardner, Jack Bieker

August 2000 Proceedings of the sixth ACM SIGKDD international conference on Knowledge discovery and data mining

Full text available:  pdf(2.27 MB)


Additional Information: full citation, references, index

Keywords: data mining, machine learning, manufacturing optimization, neural network induction, self organizing maps, semiconductor yield enhancement

## 12 Exploration of text collections with hierarchical feature maps

Dieter Merkl

July 1997 ACM SIGIR Forum , Proceedings of the 20th annual international ACM SIGIR conference on development in information retrieval, Volume 31 Issue SI

Full text available:  pdf(1.65 MB)

Additional Information: full citation, references, citing:

## 13 Image annotation and video summarization: Temporal event clustering for

Matthew Cooper, Jonathan Foote, Andreas Girgensohn, Lynn Wilcox

November 2003 Proceedings of the eleventh ACM international conference on Multimedia

Full text available:  pdf(200.13 KB)

Additional Information: full citation, abstract, references, citing:

We present similarity-based methods to cluster digital photos by time and image content, and make minimal assumptions regarding the structure or statistics of the data. We present unsupervised, and makes minimal assumptions regarding the structure or statistics of the data. We present results for the algorithm based solely on temporal similarity, and jointly on temporal and content similarity. We also describe a supervised algorithm based on learning vector quantization. Finally, we compare the proposed algorithms and ...

Keywords: digital photo organization, temporal media indexing and segmentation

## 14 Performance comparison of neural networks and pattern recognition techniques for speech transducers

M. S. Obaidat, D. S. Abu-Saymeh

March 1992 Proceedings of the 1992 ACM/SIGAPP symposium on Applied computing

Full text available:  pdf(1.03 MB)

Additional Information: full citation, references, citing:

## 15 Supervised adaptive resonance networks

R. S. Baxter

May 1991 Proceedings of the conference on Analysis of neural network applications

Full text available:  pdf(1.44 MB)

Additional Information: full citation, references, index terms

## 16 Integrating automatic genre analysis into digital libraries

Andreas Rauber, Alexander Müller-Kögler

January 2001

Proceedings of the first ACM/IEEE-CS joint conference on Digital

Full text available:  pdf(672.98 KB)

Additional Information: full citation, abstract, referenc

With the number and types of documents in digital library systems increasing, presenting the content have to be found. While many approaches focus on topic hardly any system incorporates automatic structural analysis and representation forms one of the most distinguishing features in conventional libraries and in inf present an approach to au ...



Keywords: SOMLib, document clustering, genre analysis, metaphor graphics, se

## 17 Book reviews

Karen T. Sutherland

December 2000

intelligence, Volume 11 Issue 4

Full text available:  pdf(357.20 KB)  html(39.65 KB) Additional Information: full citation, references, index te

## 18 Experiences with criticality predictions in software development

Christof Ebert

November 1997

ACM SIGSOFT Software Engineering Notes , Proceedings of the 6th 1  
5th ACM SIGSOFT international symposium on Foundations of softwa

Full text available:  pdf(1.36 MB)

Additional Information: full citation, references, citing:

Keywords: classification, criticality prediction, data analysis, eomplexity, quality

## 19 Position papers: Artificial neural networks: a science in trouble

Asim Roy

January 2000

ACM SIGKDD Explorations Newsletter, Volume 1 Issue 2

Full text available:  pdf(646.93 KB)

Additional Information: full citation, abstract,

This article points out some very serious misconceptions about the brain in contr Some of the connectionist ideas have been shown to have logical flaws, while ot commonly observed human learning processes and behavior. For example, the ( provision for learning from stored information, something that humans do all the is definitely a need for some ne ...

Keywords: artificial neural networks, automated learning, brain-like learning, co systems

**20 Summarization: The use of unlabeled data to improve supervised learning**  
Massih-Reza Amini, Patrick Gallinari  
August 2002 Proceedings of the 25th annual international ACM SIGIR conference on retrieval

Full text available:  pdf(276.81 KB)

Additional Information: full citation, abstract, referen

With the huge amount of information available electronically, there is an increase in text summarization systems. The use of machine learning techniques for this task all depends on the needs and to the corpus characteristics. These desirable properties have motivated research in this field over the last few years. Most approaches attempt to generate summaries by adopting the supervised learning paradigm ...

Keywords: machine learning, semi-supervised learning, text summarization, text

Results 1 - 20 of 200

Result page: **1** 2 3 4 5 6 7

The ACM Portal is published by the Association for Computing Machinery. C

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact](#)

Useful downloads:  Adobe Acrobat  QuickTime  Windows Med



Subscribe Register Login  
(Full Service) (Limited Service, Free)

Search: ☒ The ACM Digital Library ☐ The Guide

unsupervised and supervised and neural and clustering

Feed

Terms used unsupervised and supervised and neural and clustering

Sort results by

Display results

Save results to a Binder

Search Tips

☐ Open results in a new window

Try  
Try

Results 21 - 40 of 200

Result page: previous 1 2 3 4 5 6 7

Best 200 shown

**21 F3MCNN: a fuzzy minimum mean maximum clustering neural network**

Liangtsan G. Wu, Huizhu Lu

March 2000 Proceedings of the 2000 ACM symposium on Applied computing

Full text available: pdf(399.52 KB)

Additional Information: full citation, references, index terms

Keywords: ART, F3MCNN, clustering, fuzzy logic, neural network

**22 Think globally, fit locally: unsupervised learning of low dimensional manifold**

Lawrence K. Saul, Sam T. Roweis

September 2003

The Journal of Machine Learning Research, Volume 4

Full text available: pdf(2.91 MB)

Additional Information: full citation, references, index terms

The problem of dimensionality reduction arises in many fields of information processing, including data compression, scientific visualization, pattern recognition, and neural computation. In this paper, we introduce a new technique for dimensionality reduction called locally linear embedding (LLE), an unsupervised learning algorithm that computes low dimensional, locally linear embeddings of high dimensional data. The data, assumed to be sampled from a single global coordinate system of low ...



### 23 Fuzzy neural network models for clustering

A. D. Kulkarni, V. K. Muniganti

February 1996 Proceedings of the 1996 ACM symposium on Applied Computing

Full text available:  pdf(850.43 KB) Additional Information: full citation, references, index terms

### 24 Identifying prospective customers

Paul B. Chou, Edna Grossman, Dimitrios Gunopulos, Pasumarti Kamesam

August 2000 Proceedings of the sixth ACM SIGKDD international conference on Know

Full text available:  pdf(170.89 KB) Additional Information: full citation, references, ind

Keywords: customer prospecting

### 25 Information filtering: the computation of similarities in large corpora of legal

Erich Schweighofer, Werner Winiwarter, Dieter Merkl

May 1995 Proceedings of the fifth international conference on Artificial intelligence a

Full text available:  pdf(748.19 KB) Additional Information: full citation, references, citings, index terms

### 26 Cluster ensembles --- a knowledge reuse framework for combining multiple

Alexander Strehl, Joydeep Ghosh

March 2003 The Journal of Machine Learning Research, Volume 3

Full text available:  pdf(842.50 KB) Additional Information: full citation, abstract, referenc

This paper introduces the problem of combining multiple partitionings of a set of clustering *without* accessing the features or algorithms that determined these partitions. Application scenarios for the resultant 'knowledge reuse' framework that we call *cluster ensembles* are presented. The problem is then formalized as a combinatorial optimization problem in terms of finding a direct ...

Keywords: cluster analysis, clustering, consensus functions, ensemble, knowledge reuse, information, partitioning, unsupervised learning

## 27 Variational learning of clusters of undercomplete nonsymmetric independence

Kwokleung Chan, Te-Won Lee, Terrence J. Sejnowski

March 2003

The Journal of Machine Learning Research, Volume 3

Full text available:  pdf(345.39 KB)

Additional Information: full citation, abstract, references,

We apply a variational method to automatically determine the number of mixture high-dimensional datasets, in which the sources may be nonsymmetrically distributed where each cluster is described as a linear mixture of independent factors. The accurate density model for the observed data without overfitting problems. This can be identified for each cluster. The ...

Keywords: Bayesian learning, ICA, density estimations, mixture models

## 28 Fast supervised dimensionality reduction algorithm with applications to document

George Karypis, Eui-Hong (Sam) Han

November 2000

Proceedings of the ninth international conference on Information and

Full text available:  pdf(270.71 KB)

Additional Information: full citation, references, in

## 29 Task clustering and gating for bayesian multitask learning

Bart Bakker, Tom Heskes

September 2003

The Journal of Machine Learning Research, Volume 4

Full text available:  pdf(229.33 KB)

Additional Information: full citation,

Modeling a collection of similar regression or classification tasks can be improved by 'gating'. In machine learning, this subject is approached through 'multitask learning' where multiple outputs of the same network. In multilevel analysis this is generally implemented as a linear model where a distinction is made between 'fixed effects', which are the same for all tasks, and 'random effects', which may vary between tasks ...

## 30 Scalable feature selection, classification and signature generation for organizing hierarchical topic taxonomies

Soumen Chakrabarti, Byron Dom, Rakesh Agrawal, Prabhakar Raghavan

August 1998

The VLDB Journal &mdash; The International Journal on Very Large Databases

Full text available:  pdf(281.37 KB)

Additional Information: full citation, abstract, citations

We explore how to organize large text databases hierarchically by topic to aid browsing. Many corpora, such as internet directories, digital libraries, and patent database hierarchies, also called *taxonomies*. Similar to indices for relational data, taxonomies are efficient. However, the exponential growth in the volume of on-line textual information makes it difficult to maintain such taxonomies ...

### 31 Industry track papers: Mining heterogeneous gene expression data with time

Yulan Liang, Arpad Kelemen

July 2002 Proceedings of the eighth ACM SIGKDD international conference on Knowledge discovery in data mining

Full text available:  pdf(1.48 MB)

Additional Information: full citation, abstract, reference

Heterogeneous types of gene expressions may provide a better insight into the environment, disease development and drug effect at the molecular level. In this paper, we propose a Time Lagged Recurrent Neural Network with trajectory learning to discover gene functional patterns from the heterogeneous nonlinear time series microarray data. We identify gene functional patterns from the heterogeneous nonlinear time series microarray data.

Keywords: backpropagation through time, gene expression, heterogeneous, time series learning

### 32 A parallel topological feature map in APL

J. Frey, D. Scheppelmann, G.-P. Glombitza, H. Meinzer

September 1993 ACM SIGAPL APL Quote Quad, Proceedings of the international conference on APL

Full text available:  pdf(467.63 KB)


Additional Information: full citation, abstract, reference

One can distinguish two different approaches of neural networks: the supervised and the unsupervised neural networks. The first type of neural nets is supplied with an initial learning procedure, the neural net adjusts weighting factors of the links between input and output vectors map to the ideal output. Those nets are used for example in robotics, where the position of the robot is determined.

### 33 Spatiotemporal Databases: Learning geoscience categories in Situ: implications for representation

Boyan Brodaric, Mark Gahegan

November 2001 Proceedings of the ninth ACM international symposium on Advances in spatial databases

Full text available:  pdf(2.24 MB)

Additional Information: full citation, abstract, reference

This paper explores the development of categories shared in the field logging of geoscience data. Visualization, neural networks and spatial statistical tools are employed to gain insight into the attributes observed, and into the categories developed. Background material and findings in the light of research into category development, and specifically how categories are modified as part of the (geo)spatial data analysis process.

Keywords: category development, classification, geological fieldwork, information learning

### 34 Document clustering using word clusters via the information bottleneck method

Noam Slonim, Naftali Tishby

July 2000 Proceedings of the 23rd annual international ACM SIGIR conference on Research in information retrieval

Full text available:  pdf(854.89 KB)

Additional Information: full citation, abstract, references

We present a novel implementation of the recently introduced *information bottleneck* method for unsupervised document clustering. Given a joint empirical distribution  $p(x, y)$ , we first cluster the words,  $Y$ , so that the obtained word clusters preserve the information on the documents. The resulting joint distribution contains most of the original information about the documents,

### 35 Survey articles: Data mining for hypertext: a tutorial survey

Soumen Chakrabarti

January 2000

ACM SIGKDD Explorations Newsletter, Volume 1 Issue 2

Full text available:  pdf(1.19 MB)

Additional Information: full citation, abstract, references

With over 800 million pages covering most areas of human endeavor, the World Wide Web presents a tremendous challenge to data mining research to make a difference to the effectiveness of information search. This challenge is addressed through two dominant interfaces: clicking on hyperlinks and searching via keywords. Both interfaces are often inefficient and unsatisfactory. Better support is needed for expressing one's information needs in more structured ways than available today.

### 36 Posters: Image classification using hybrid neural networks

Chih-Fong Tsai, Ken McGarry, John Tait

July 2003 Proceedings of the 26th annual international ACM SIGIR conference on Research in information retrieval

Full text available:  pdf(199.31 KB)

Additional Information: full citation, abstract, references


Use of semantic content is one of the major issues which needs to be addressed to improve the effectiveness of image search. We present a new approach to classify images based on the combination of content-based and hybrid neural networks. Multiple keywords are assigned to an image to represent its semantic content. Images are divided into a number of regions and colour and texture features are extracted. A self-organising map (SOM) clusters the features.

Keywords: content-based image retrieval, image indexing/classification, neural networks

### 37 Clustering algorithms: Alternatives to the k-means algorithm that find better

Greg Hamerly, Charles Elkan

November 2002 Proceedings of the eleventh international conference on Information and Knowledge Management

Full text available:  pdf(1.32 MB)

Additional Information: full citation, abstract, reference:

We investigate here the behavior of the standard k-means clustering algorithm ; k-harmonic means algorithm due to Zhang and colleagues, fuzzy k-means, Gaussian new variants of k-harmonic means. Our aim is to find which aspects of these algorithms clusterings, as opposed to converging to a low-quality local optimum. We describe that introduces separate cluster members ...

Keywords: clustering quality, k-harmonic means, k-means, unsupervised classification

### 38 Machine learning in automated text categorization

Fabrizio Sebastiani

March 2002 ACM Computing Surveys (CSUR), Volume 34 Issue 1

Full text available:  pdf(524.41 KB)

Additional Information: full citation, abstract, references,

The automated categorization (or classification) of texts into predefined categories the last 10 years, due to the increased availability of documents in digital form ; the research community the dominant approach to this problem is based on machine inductive process automatically builds a classifier by learning, from a set of previously the categories. ...

Keywords: Machine learning, text categorization, text classification

### 39 High performance data mining (tutorial PM-3)

Vipin Kumar, Mohammed Zaki

August 2000 Tutorial notes of the sixth ACM SIGKDD international conference on Knowledge Discovery and Data Mining

Full text available:  pdf(8.06 MB)

Additional Information: full citation, references, index

#### 40 A.I. and computational logic: An effective document clustering method using

Han-joon Kim, Sang-goo Lee

March 2002

Proceedings of the 2002 ACM symposium on Applied computing

Full text available:  pdf(478.99 KB)

Additional Information: full citation, abstract, references

Document clustering is inherently an unsupervised learning process that organizes groups without depending on pre-specified knowledge. However, real-world applications for a large document collection, need to perform clustering under various presents a new type of supervised clustering to organize information in a way that As a means by which external ...

Keywords: document clustering, hierarchical clustering, information organization knowledge

Results 21 - 40 of 200

Result page: previous 1 **2** 3 4

The ACM Portal is published by the Association for Computing Machinery. (

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact](#)

Useful downloads:  Adobe Acrobat  QuickTime  Windows Media



Subscribe Register Login  
(Full Service) (Limited Service, Free)

Search: ☒ The ACM Digital Library ☐ The Guide

unsupervised and supervised and neural and clustering

THE ACM DIGITAL LIBRARY

Feed

Terms used unsupervised and supervised and neural and clustering

Sort results  
by

relevance

Save results to a Binder

Search Tips

☐ Open results in a new window

Try  
Try

Display results

expanded form

Results 41 - 60 of 200

Result page: previous 1 2 **3** 4 5 6 7

Best 200 shown

#### 41 Special issue on special feature: Sufficient dimensionality reduction

Amir Globerson, Naftali Tishby

March 2003

The Journal of Machine Learning Research, Volume 3

Full text available: pdf(266.18 KB)

Additional Information: full citation

Dimensionality reduction of empirical co-occurrence data is a fundamental problem well studied in statistics known as the analysis of cross-classified data. to represent the data in low dimension with minimal loss of (mutual) information paper we introduce an information theoretic nonlinear method for finding such a contrast wi ...

## 42 Automated revision of GIS databases

Volker Walter, Dieter Fritsch

November 2000 Proceedings of the eighth ACM international symposium on Advances in GIS

Full text available:  pdf(703.89 KB)

Additional Information: full citation, abstract, references

Digital spatial data are underlying strong temporal changes. The changes in these data is to check the data manually for their correctness up-to-date orthophotos. The update cycles of large data sets are present shorter update cycles are unrealizable for two reasons. It is very cost- and time-consuming and aerial photographs for large areas are not available in the needed ...

Keywords: ATKIS, GIS, classification, matching, remote sensing

## 43 Self organizing neural networks with a split/merge algorithm

A. D. Kulkarni, G. M. Whitson

February 1990 Proceedings of the 1990 ACM SIGSMALL/PC symposium on Small Systems

Full text available:  pdf(525.13 KB)

Additional Information: full citation, abstract, references

In this paper we present a new learning algorithm for Artificial Neural Networks. An ANN model with the new algorithm has been developed and tested on a PC. The model identifies the input patterns, and identifies the number of categories present in the input sample. Unlike the competitive learning algorithm, in this algorithm the long term weights ( ...

## 44 Special issue on ICML: Coupled clustering: a method for detecting structure

Zvika Marx, Ido Dagan, Joachim M. Buhmann, Eli Shamir

March 2003 The Journal of Machine Learning Research, Volume 3

Full text available:  pdf(967.15 KB)

Additional Information: full citation, abstract, references

This paper proposes a new paradigm and a computational framework for revealing sub-structures of distinct composite systems that are initially represented by unstructured data. We introduce and investigate a variant of traditional data clustering, termed *coupled clustering*, of corresponding subsets of two such representative sets. We apply our method to a real-world problem and achieve a significant improvement ...



**45 An empirical comparison of supervised machine learning techniques in bioinformatics**

Aik Choon Tan, David Gilbert

January 2003 Proceedings of the First Asia-Pacific bioinformatics conference on Bioinformatics

Full text available:  pdf(234.35 KB)

Additional Information: full citation, abstract, references

Research in bioinformatics is driven by the experimental data. Current biological amounts of experimental data. Machine learning has been widely applied to bioinformatics in this research area. At present, with various learning algorithms available in the field, there are difficulties in choosing the best method that can apply to their data. We perform experiments with different learning systems and 9 different datasets.

Keywords: bioinformatics, ensemble methods, performance evaluation, supervised learning

**46 Regularized principal manifolds**

Alexander J. Smola, Sebastian Mika, Bernhard Schölkopf, Robert C. Williamson

September 2001

The Journal of Machine Learning Research, Volume 1

Full text available:  pdf(770.51 KB)

Additional Information: full citation, abstract, references

Many settings of unsupervised learning can be viewed as quantization problems. This paper shows that quantization error subject to some restrictions. This allows the use of tools such as (supervised) risk minimization for unsupervised learning. This setting turns out to be the generative topographic map, and robust coding. We explore this connection in the context of finding principal manifolds.

**47 Bioinformatics: Gene functional classification by semi-supervised learning**

Tao Li, Shenghuo Zhu, Qi Li, Mitsunori Ogihara

March 2003

Proceedings of the 2003 ACM symposium on Applied computing

Full text available:  pdf(601.62 KB)

Additional Information: full citation, abstract, references

Gene function discovery is an important and interesting problem in computational biology. In this paper, we investigate the use of a semi-supervised learning algorithm for inferring gene functions from heterogeneous data set consisting of DNA microarray expression measurements and whole-genome sequence annotations. The semisupervised learning approach is compared with individual models built from each separate data set.

Keywords: Support Vector Machine(SVM), gene functional classification, heterogeneous data, semi-supervised learning

**48 Automatic text representation, classification and labeling in European law**

Erich Schweighofer, Andreas Rauber, Michael Dittenbach

May 2001 Proceedings of the 8th international conference on Artificial intelligence

Full text available:  pdf(265.20 KB)

Additional Information: full citation, abstract, referen

The huge text archives and retrieval systems of legal information representation in the well-known subject-oriented structure of le Content-based classification and text analysis remains a high pri KONTERM, SOM and LabelSOM projects, learning techniques of i achieve similar high compression rates of classification and anal The produced maps of legal text co ...

**49 Feature selection in unsupervised learning via evolutionary search**

YeongSeog Kim, W. Nick Street, Filippo Menczer

August 2000 Proceedings of the sixth ACM SIGKDD international conference on Know

Full text available:  pdf(213.12 KB)

Additional Information: full citation, references, ind

Keywords: clustering, evolutionary search, feature selection

**50 A QoS-Provisioning neural fuzzy connection admission controller for multir**

Ray-Guang Cheng, Chung-Ju Chang, Li-Fong Lin

February 1999 IEEE/ACM Transactions on Networking (TON), Volume 7 Issue :

Full text available:  pdf(342.90 KB)

Additional Information: full citation, references, citings, in

**51 Special issue on kernel methods: Support vector clustering**

Asa Ben-Hur, David Horn, Hava T. Siegelmann, Vladimir Vapnik

March 2002 The Journal of Machine Learning Research, Volume 2

Full text available:  pdf(343.44 KB)

Additional Information: full citation

We present a novel clustering method using the approach of support vector mac of a Gaussian kernel to a high dimensional feature space, where we search for t when mapped back to data space, can separate into several components, each e present a simple algorithm for identifying these clusters. The width of the Gauss data is probed while ...

**52 Nonlinear smoothing of signals by applying fuzzy clustering to local points**

Mahmood Doroodchi, Ali M. Reza

February 1996 Proceedings of the 1996 ACM symposium on Applied Computing

Full text available:  pdf(850.51 KB)

Additional Information: full citation, references, index terms

**53 A verification methodology for computer systems users**

M. S. Obaidat

February 1995 Proceedings of the 1995 ACM symposium on Applied computing

Full text available:  pdf(561.61 KB)

Additional Information: full citation, references, index terms

Keywords: classification, interkey times, key hold times, neural networks

**54 Summarization: Generic summarization and keyphrase extraction using mutual sentence clustering**

Hongyuan Zha

August 2002 Proceedings of the 25th annual international ACM SIGIR conference on retrieval

Full text available:  pdf(191.05 KB)

Additional Information: full citation, abstract, references

A novel method for *simultaneous* keyphrase extraction and generic text summarization of documents as weighted undirected and weighted bipartite graphs. Spectral graph partitioning sentences of the documents into topical groups with sentence link probability quality. Within each topical group, saliency scores for keyphrases and sentences reinforcement principle. The ...

Keywords: bipartite graph, graph partitioning, keyphrase extraction, mutual reinforcement decomposition, text summarization

**55 Poster papers: B-EM: a classifier incorporating bootstrap with EM approach**

Xintao Wu, Jianping Fan, Kalpathi R. Subramanian

July 2002 Proceedings of the eighth ACM SIGKDD international conference on Knowledge discovery and data mining

Full text available:  pdf(581.63 KB)

Additional Information: full citation, abstract, references

This paper investigates the problem of augmenting labeled data with unlabeled data. This is significant for many applications such as image classification where obtaining large unlabeled examples are easily available. We investigate an Expectation-Maximization learning from labeled and unlabeled data. The reason why unlabeled data boost the information about the ...

Keywords: bootstrap method, classification, expectation maximization, supervised learning

**56 Graph-based hierarchical conceptual clustering**

Istvan Jonyer, Diane J. Cook, Lawrence B. Holder

March 2002

The Journal of Machine Learning Research, Volume 2

Full text available:  pdf(228.03 KB)

Additional Information: full citation, abstract, referen

Hierarchical conceptual clustering has proven to be a useful, although under-exp graph-based representation of structural information combined with a substructu to be successful in knowledge discovery. The SUBDUE substructure discovery sy approaches. This work presents SUBDUE and the development of its clustering f to illustrate the validity of the app ...

Keywords: cluster analysis, clustering, concept formation, graph match, structur

**57 Automatic construction of radial basis function networks with the growing n fuzzy logic**

Bernd Fritzke

February 1996

Proceedings of the 1996 ACM symposium on Applied Computi

Full text available:  pdf(402.32 KB)

Additional Information: full citation, references,

Keywords: fuzzy systems, incremental learning, radial basis function networks

**58 Measuring praise and criticism: Inference of semantic orientation from assc**

Peter D. Turney, Michael L. Littman

October 2003

ACM Transactions on Information Systems (TOIS), Volume 21 I:

Full text available:  pdf(640.81 KB)

Additional Information: full citation, abstract, referenc

The evaluative character of a word is called its *semantic orientation*. Positive ser "honest", "intrepid") and negative semantic orientation indicates criticism (e.g., orientation varies in both direction (positive or negative) and degree (mild to str measuring semantic orientation would have application in text classification, tex discussions ...

Keywords: latent semantic analysis, mutual information, semantic association, s text mining, unsupervised learning, web mining

**59 Developing a focus in unsupervised database mining**

Lawrence J. Mazlack

April 1997 Proceedings of the 1997 ACM symposium on Applied computing

Full text available:  pdf(492.94 KB)

Additional Information: full citation, index terms

Keywords: data base mining, dissonance, focus, knowledge discovery, non-crisp

**60 A comparative study for domain ontology guided feature extraction**

Bill B. Wang, R. I. Bob McKay, Hussein A. Abbass, Michael Barlow

February 2003 Proceedings of the twenty-sixth Australasian computer science conference practice in information technology - Volume 16

Full text available:  pdf(119.73 KB)

Additional Information: full citation, abstract, referen

We introduced a novel method employing a hierarchical domain ontology structure to extract features from documents in our previous publication (Wang 2002). All raw words in the training concept hierarchy derived from the domain ontology. Based on these concepts, training document space, using is-a relationships defined in the domain ontology obtained by searching the concept hi ...

Keywords:  $\chi^2$  statistics, KNN algorithm, concept hierarchy, information gain, ontology classification

Results 41 - 60 of 200

Result page: previous 1 2 **3** 4

The ACM Portal is published by the Association for Computing Machinery. C

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Cont](#)

Useful downloads:  Adobe Acrobat  QuickTime  Windows Med